

APPENDIX B: XML for Example in Figure 3

TigerNews.xml:

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5  <!-- Tiger News MM Description -->

    <MM_Stream id="TigerNews5-28-1000">
        <MM_Object_Set>

10         <!-- Tiger News -->
            <MM_Object type="GLOBAL" id="mmog0"
Object_Node_Ref="mmon0">
                <MM_Obj_Semantic_Features>
                    <who> <concept> Anchorperson: S. Paek </concept>

15 </who>

                    <what_object> <concept> The Tiger </concept>

</what_object>

                    <what_action>
                        <concept> Tiger is Feeding </concept>

20 </what_action>
                    <where> <concept> Nigeria, Africa </concept> </where>
                    <when> <concept> May 28, 2000 </concept> </when>
                    <why> <concept> Nature news </concept> </why>
                </MM_Obj_Semantic_Features>
                <MM_Obj_Temporal_Features>
                    <Duration> ... </Duration>
                </MM_Obj_Semantic_Features>
            </MM_Object>

25

            <!-- Audio 1: Anchorperson -->
            <MM_Object type="LOCAL" id="mmol1" Object_Node_Ref="mmon1"
                Entity_Node_Ref="mmen1">
                <Media_Object_Set>
                    <!-- Global audio object -->
35 <Audio_Object type="GLOBAL" id="ao1g0"
                        Object_Node_Ref="mmol1on0">
                            <!-- Features of the audio object: semantics, media,
etc -->

                                </Audio_Object>

40 <!-- Introduction of news report -->
                <Audio_Object type="SEGMENT" id="ao1s1"
                    Object_Node_ref="mmol1on1"
                    Entity_Node_Ref="mmollen1">

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etc -->
<!-- Features of the audio object: semantics, media,
</Audio_Object>
<!-- Comments on news -->
<Audio_Object type="SEGMENT" id="ao1s2"
      Object_Node_ref="mmol1on2"
      Entity_Node_Ref="mmol1en2">
<!-- Features of the audio object: semantics, media,
etc -->
</Audio_Object>
</Media_Object_Set>
<Object_Hierarchy>
  <Object_Node id="mmol1on0" Object_Ref="ao1g0">
    <Object_Node id="mmol1on1" Object_Ref="ao1s1">
      <Object_Node id="mmol1on0" Object_Ref="ao1s2">
        </Object_Node>
      </Object_Hierarchy>
    <Entity_Relation_Graph type="TEMPORAL">
      <Entity_Relation>
        <Relation type="TEMPORAL">
          <Temporal_Sequential />
        </Relation>
      <Entity_Node id="mmol1en1" Objec_Ref="ao1s1">
        <Entity_Node id="mmol1en2" Objec_Ref="ao1s2">
          </Entity_Relation>
        </Entity_Relation_Graph>
      <MM_Obj_Media_Features>
        <Data_Location> ... </Data_Location>
      </MM_Obj_Media_Features>
      <MM_Obj_Semantic_Features> ...
    </MM_Obj_Semantic_Features>
      <MM_Obj_Temporal_Features> ...
    </MM_Obj_Temporal_Features>
  </MM_Object>

  <!-- Audio 2: Tiger -->
  <MM_Object type="LOCAL" id="mmol2" Object_Node_Ref="mmon2"
        Entity_Node_Ref="mmen2">
    <!-- Single-media objects and features -->
  </MM_Object>

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5      <!-- Video: Tiger News' Video -->
      <MM_Object type="LOCAL" id="mmol3" Object_Node_Ref="mmon3"
          Entity_Node_Ref="mmen3">
          <!-- Single-media objects and features -->
      </MM_Object>

      <!-- Anchorperson -->
      <!-- Groups the objects related to Anchorperson across media -->
10     <MM_Object type="LOCAL" id="mmol4" ... >
          <Media_Object_Set>
              <Video_Object type="SEGMENT" Object_Ref="vos1" />
              <Audio_Object type="GLOBAL" Object_Ref="ao1g0" />
          </Media_Object_Set>
15     </MM_Object>

      <!-- Tiger -->
      <MM_Object type="LOCAL" id="mmol5" ... >
          <!-- Object and features -->
20     </MM_Object>
    </MM_Object_Set>

    <Object_Hierarchy>
        <Object_Node id="mmon0" Object_Ref="mmog0">
25            <Object_Node id="mmon1" Object_Ref="mmol1" />
            <Object_Node id="mmon2" Object_Ref="mmol2" />
            <Object_Node id="mmon3" Object_Ref="mmol3" />
        </Object_Node>
    </Object_Hierarchy>
30

    <Entity_Relation_Graph type="TEMPORAL.SMIL">
        <Entity_Relation>
            <Relation type="TEMPORAL">
                <Temporal_Parallel />
35            </Relation>
            <Relation_Node id="mmen1" Object_Ref="mmol1" />
            <Relation_Node id="mmen2" Object_Ref="mmol2" />
            <Relation_Node id="mmen3" Object_Ref="mmol3" />
        </Entity_Relation>
40    </Entity_Relation_Graph>

</MM_Stream>

<!-- Tiger News MM Description -->

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